IN THE CLAIMS

Please amend the claims as follows:

1. (original) A method of processing a substrate for a domain expansion storage medium in which a magnetic wall is displaced in a readout layer to thereby enlarge a magnetic domain of a storage layer so as to reproduce an information indicated by said magnetic domain, said method comprising the steps of:

a) passing at least one beam of ions through a mask with a predetermined pattern so as to project said predetermined pattern towards said substrate;

b) processing a surface by said at least one beam of ions at exposed portions; and

c) depositing said storage layer above said processed surface so as to define magnetic domains of a data structure in said storage layer at portions corresponding to said exposed portions.

2. (original) A method according to claim 1, further comprising an initial step of depositing an additional layer of a seed metal or a dielectric material on said substrate before performing said ion beam projection step, wherein the surface of said additional layer is processed in said processing step.

3. (original) A method according to claim 1, wherein the surface of said substrate is processed in said processing step.

4. (original) A method according to claim 1, wherein said surface processing is a sputtering process to generate a pattern of roughened or smoothed areas at said exposed portions.

5. (currently amended) A method according to ~~any one of the preceding claims~~claim 1, wherein said processing step is adapted to modify optical properties at predetermined surface portions so as to define a track structure of said storage medium.

6. (original) A method according to claim 5, wherein a first mask is used for forming said data pattern and a second mask is used for forming said track structure, or vice versa.

7. (currently amended) A method according to claim 5~~ or 6~~, wherein said beam projection and processing steps are performed at least two times for said track structure.

8. (currently amended) A method according to ~~any one of claims 5 to 7~~claim 5, wherein said beam projection and processing steps are adapted to pattern embedded servo information into said surface.

9. (currently amended) A method according to ~~any one of the preceding claims~~claim 1, further comprising the step of controlling the focus of said at least one ion beam so as to modify the roughness of said surface.

10. (original) A method according to claim 9, wherein a first focus is used for forming said data structure, while a second focus is used for forming a servo pattern.

11. (currently amended) A method according to ~~any one of the preceding claims~~claim 1, wherein a whole disk is patterned in said ion beam projection and processing steps.

12. (currently amended) A method according to ~~any one of the preceding claims~~claim 1, further comprising the step of forming said mask by an e-beam lithography and a subsequent semiconductor etching.

13. (original) A domain expansion storage medium in which a magnetic wall is displaced in a readout layer to thereby enlarge a magnetic domain of a storage layer so as to reproduce the information indicated by said magnetic domain, said storage medium comprising an intermediate surface processed by ion beam projection lithography with a predetermined pattern to define at least one of

a data pattern of said storage layer, a track pattern and a servo pattern.

14. (original) A storage medium according to claim 13, wherein said processed intermediate surface corresponds to the surface of a substrate of said storage medium.

15. (original) A storage medium according to claim 13, wherein said processed intermediate surface corresponds to the surface of a seed or dielectric layer deposited on a substrate of said storage medium.